

Navy Advancement Center

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Advancement Handbook for Boatswain's Mate

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PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs), together with this handbook, form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the Boatswain's Mate rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are cumulative; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the "*Exam Expectations*" section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

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Part 1

Advancement Handbook for BM3

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Render calls on boatswain's pipe
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Identify boatswain's pipe calls
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: naming the parts of the boatswain's pipe; piping calls and positioning of the hand; saluting procedures when piping the side; and piping over the 1MC in conjunction with standard phraseology.

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General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Splice, tie/untie lines, and make ornamental coverings and sennits
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the tasks and procedures associated with the following:</p> <ul style="list-style-type: none"> • Tying knots, bends, hitches, and line splices (double-braided kevlar, plaited, etc.) and applying whipping to lines • Making fancy work • Making fenders • Making slings and straps • Identifying types of line
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • Seaman, NAVEDTRA 12016 • Knight's Modern Seamanship • Naval Ships' Technical Manual (NSTM), Chapter 613, Wire and Fiber Rope and Rigging
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You should expect to be tested on the following: describing line construction, size, and type of lines; using knots, bends, and hitches for specific operations; describing types of ornamental coverings and sennits and their uses; making a small boat fender; splicing different types and sizes of lines; whipping and seizing line; and describing the different types of seizing and their uses.</p>

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General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect, splice and install end fittings to wire rope
<i>Knowledge</i> you should have to perform this skill:	<p>Recall procedures for the following:</p> <ul style="list-style-type: none"> • Uncoiling and unreeling wire rope • Measuring wire rope • Cleaning and inspecting wire rope and end fittings • Seizing wire rope • Installing wire rope clips • Splicing wire rope
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 613, Wire and Fiber Rope and Rigging • FED Spec RR-W-410 (Series)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: handling wire rope; identifying types and construction of wire rope; determining wire rope size; acquiring wire rope breaking strength (BS); replacing wire rope; installing wire rope clips; and describing the three types of splicing used for wire ropes.

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General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make up lines removed from the manufacturer's coil
<i>Knowledge</i> you should have to perform this skill:	Describe the following line make ups: <ul style="list-style-type: none">• Coiling down a line• Faking down a line• Flemishing down a line
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seaman, NAVEDTRA 12016• NSTM, Chapter 613, Wire and Fiber Rope and Rigging
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: removing lines from the reel and making up lines.

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General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make a lead line, and obtain soundings (measuring the depth of water) by use of a lead line
<i>Knowledge</i> you should have to perform this skill:	Identify procedures for the following: <ul style="list-style-type: none">• Manufacturing a lead line• Throwing and reading a lead line• Rigging and unrigging leadsman platform (as per ship's specifications)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100• Seaman, NAVEDTRA 12016
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: manufacturing of a lead line; throwing a lead line; and reading the marks on the lead line.

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General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make and replace mooring stoppers
<i>Knowledge</i> you should have to perform this skill:	Identify the procedures for the following: <ul style="list-style-type: none"> • Using stoppers on mooring lines • Making stoppers
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • Knight's Modern Seamanship
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: using stoppers in relation to mooring line sizes and identifying types of stoppers.

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General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make and throw a bolo line
<i>Knowledge</i> you should have to perform this skill:	Identify procedures for the following: <ul style="list-style-type: none"> • Making a bolo line • Throwing a bolo line
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Underway Replenishment Hardware and Equipment Manual (S9570-AD-CAT-010) • NSTM, Chapter 571, Underway Replenishment • NWP 4-01.4, Underway Replenishment
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: making and throwing a bolo line.

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General BM Skill Area	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Design, make, and sew canvas covers and leathers
<i>Knowledge</i> you should have to perform this skill:	<p>Identify procedures for the following:</p> <ul style="list-style-type: none"> • Sewing canvasses and leathers • Designing and making canvas covers • Describing the application, care, and stowage of manufactured canvas products
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • Seaman, NAVEDTRA 12016
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: measuring and cutting canvas; identifying numbered canvas and their uses; identifying tools used to sew canvas by hand and methods of stitching; and inspecting, cleaning, and stowing canvas.

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General BM <i>Skill Area</i>	Marlinespike Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make safety lines; clean, inspect, and replace lifelines
<i>Knowledge</i> you should have to perform this skill:	Identify the procedures in the following: <ul style="list-style-type: none"> • Making safety lines • Clean, inspect, and replace lifelines
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NSTM, Chapter 613, Wire and Fiber Rope and Rigging • FED SPEC RR-W-410, Wire Rope Acceptance Breaking Strength
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: making safety lines and cleaning, inspecting, and replacing lifelines.

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General BM <i>Skill Area</i>	Deck Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inventory, issue, use, and maintain pneumatic and hand tools
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the following procedures in the use and maintenance of pneumatic and hand tools:</p> <ul style="list-style-type: none"> • Inventorying and issuing • Cleaning, inspecting, and repairing • Demonstrating use of the tool (to include safety)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 631, Volume 2, Preservation of Ships In Service-Surface Preparation and Painting • OPNAVINST 5100.19, Navy Occupational Safety and Health Program Manual for Forces Afloat
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: identifying safety equipment used when operating pneumatic and hand tools; determining the correct tool to use for a given procedure; and replacing equipment parts.

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General BM <i>Skill Area</i>	Deck Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig ladders [Occupational Standard number(s): B044; B052; B053; B046]
<i>Knowledge</i> you should have to perform this skill:	Demonstrate rigging the following types of ladders and associated equipment: <ul style="list-style-type: none"> • Accommodation ladders and chain and bridle • Pilots ladders • Jacob's ladders
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • Knight's Modern Seamanship
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect to be tested on the following: identifying parts of the accommodation ladder; rigging the accommodation ladder; and rigging, climbing, and identifying the purpose of the Jacob's ladder.

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General BM <i>Skill Area</i>	Deck Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig boatswain's chair, stages, and safety nets [Occupational Standard number(s): B045; B057; B058; B059]
<i>Knowledge</i> you should have to perform this skill:	Identify the procedures to perform the following: <ul style="list-style-type: none"> • Securing methods when rigging a boatswain's chair, stages, and safety nets • Tending and manning lines on the boatswain's chair and stage • Running a working aloft/over-the-side chit
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • OPNAVINST 5100.19, Navy Occupational Safety and Health Program Manual for Forces Afloat
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect to be tested on the following: securing boatswain's chair and stage; using required equipment when working aloft/over-the-side; tending and manning lines; and running a personnel working aloft/over-the side chit.

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General BM <i>Skill Area</i>	Deck Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig camels and fenders
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Identify the uses of camels and fenders• Describe the different types of fenders used for ships and boats• Maintain and repair fenders
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100• NSTM, Chapter 611, Fenders
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: cleaning, maintaining, and repairing boat fenders; identifying types and uses of fenders and camels; and rigging fenders and camels.

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General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Reeve tackles
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the parts of a fiber rope block • Recognize the most commonly used combinations of blocks and tackles and their mechanical advantages • Understand the allowance for friction on blocks and tackles • Compute the breaking strength (BS) and safe working load (SWL) for lifting a given weight • Identify the uses of common cargo blocks • Explain the use of chain hoists • Recognize the difference in various types of shackles
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • Knight's Modern Seamanship
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the following: identifying the parts of a fiber rope block; maintaining and overhauling of blocks; calculating BS and SWL; determining the mechanical advantage of using blocks and tackles; identifying the three types of cargo blocks and their uses; stating the safe rule of thumb used to find the proper block size for various sizes of fiber line; and identifying the different types, grades, and classes of safety shackles.

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General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig king posts
<i>Knowledge</i> you should have to perform this skill:	Describe the purpose of the following: <ul style="list-style-type: none">• King posts used in crane operations
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100• NSTM, Chapter 589, Cranes
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: describing the use of a king post.

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General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig single swinging booms and yard-and-stay booms and perform winch operations
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify and describe the parts of a swinging or yard-and-stay boom • Explain the yard-and-stay method of rigging • Perform winch operations
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 573, Booms
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: explaining the functions of the parts of a yard-and-stay; describing the different methods used in rigging single swinging booms and yard-and-stay booms; identifying the function of associated boom rigging equipment and parts; and operating winches during cargo handling.

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General BM Skill Area	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform crane and boom operations for loading and unloading a ship
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify equipment used for loading and unloading cargo • Demonstrate proper signals used in crane and boom operations • Demonstrate spotting cargo
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 589, Cranes
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying equipment used in hoisting and lowering a load; identifying the importance of wearing specific colors on hard hats and vests; signaling the crane operator; and spotting cargo.

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General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Move and store cargo with material handling equipment
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> Identify equipment used to move, stow, and tie-down deck cargo
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying the equipment used to move, stow, and secure cargo.

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General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Clean, maintain, and test crane riggings and booms; perform boom operation
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Clean and inspect crane riggings and booms • Perform boom and crane operations
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NSTM, Chapter 589, Cranes • NSTM, Chapter 573, Booms
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: cleaning and inspecting cables, pendants, and booms; and performing boom and crane operation.

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General BM <i>Skill Area</i>	Anchoring, Mooring, and Towing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Drop and weigh anchor, test anchor windlasses, preserve ground tackles, and rig/unrig clear hawse pennants
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the tasks and procedures necessary to complete the following:</p> <ul style="list-style-type: none"> • Maintain ground tackle and appendages • Prepare ground tackle • Test anchor windlass • Drop, weigh, and secure anchor • Read anchor tending • Pass stoppers
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 581, Anchoring • Knight's Modern Seamanship
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: cleaning, inspecting, and preserving ground tackle; engaging, disengaging, and testing anchor windlasses; dropping, weighing, and securing anchor; reading the positions of the anchor and chain; and rigging clear hawse pendants.

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General BM <i>Skill Area</i>	Anchoring, Mooring, and Towing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Moor and unmoor to a buoy and rig and unrig dip ropes
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify methods to moor to a buoy • Identify the various mooring configurations • Identify the procedures to follow to rig and unrig dip ropes
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 582, Mooring and Towing • Knight's Modern Seamanship
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying equipment used when mooring to a buoy; using various methods of mooring to a buoy; identifying buoy mooring configurations; and rigging and unrigging dip rope.

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General BM <i>Skill Area</i>	Anchoring, Mooring, and Towing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Moor to and unmoor from pier using mooring lines
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify mooring equipment • Determine strain on mooring lines • Identify procedures for passing a stopper • Identify mooring line(s) configurations • Recall line handling procedures • Identify purpose and means to install a rat guard
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 582, Mooring and Towing
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: heaving lines; cleaning, inspecting, and testing capstan; inspecting mooring lines and gears; securing the moor (configuration); identifying and rigging mooring equipment; installing tattletale lines; rigging and unrigging rat guards; tending mooring lines, and fraping mooring lines.

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General BM <i>Skill Area</i>	Anchoring, Mooring, and Towing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig ship for towing another ship and being towed
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the procedures for towing • Identify the procedures for being towed • Recall the steps to engage and disengage anchor windlass on the towed ship
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 582, Mooring and Towing • U.S. Navy Towing Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying types of mooring lines; rigging of towing equipment on the towed and towing ship; identifying sound signals used in towing; and detaching and securing anchor chain.

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General BM <i>Skill Area</i>	Underway Replenishment
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make and rig underway replenishment (UNREP) equipment
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the procedures to perform the following tasks:</p> <ul style="list-style-type: none"> • Rig and unrig blocks • Make a bridge-to-bridge telephone and distance line and temporary lifelines • Make, send, or receive standard tension automatic release (STAR) messengers
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NWP 4-01.4, Underway Replenishment • Underway Replenishment Hardware and Equipment Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the procedures for the following: making, rigging, sending, and receiving STAR messengers; making, rigging, sending, and receiving bridge-to-bridge telephone and distance line; and rigging life lines.

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General BM <i>Skill Area</i>	Underway Replenishment
A <i>skill</i> you are expected to perform from the General Skill Area above:	Fueling at sea
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the various methods of fueling • Identify equipment used for the various methods of fueling • Recognize and interpret signals (sound, paddles, flags, etc.) received • Send UNREP signals • Maintain fueling equipment
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NWP 4-01.4, Underway Replenishment • Underway Replenishment Hardware and Equipment Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You should expect questions on the procedures for the following: rigging a close-in fueling station; rigging daytime and nighttime markers; rigging a probe fueling station (single and double) or ROBB fueling station; rigging a fueling station using quick-release couplings (ex. Breakable spool-NATO; Type D-2 Nozzle; etc.); testing and inspecting refueling hoses; cleaning, inspecting, repairing, or replacing fueling coupling components; receiving and sending signals including: flag hoists, paddles, sound, station markers, etc.); and identifying and rigging associated with UNREP fueling equipment (yo-yo block, hose sizes, flow-through saddles, span wire, etc.).</p>

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General BM <i>Skill Area</i>	Underway Replenishment
A <i>skill</i> you are expected to perform from the General Skill Area above:	Replenishment at sea
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Recall and recognize the terms Standard Tension Replenishment Alongside Method (STREAM), Standard Tension Automatic Release (STAR) messengers, and SURF • Identify STREAM rigs and their associated equipment used in transferring cargo • Identify signals and equipment used to maintain communications between ships
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NWP 4-01.4, Underway Replenishment • Underway Replenishment Hardware and Equipment Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You should expect questions on the following: rigging procedures for solid cargo transfer and STREAM rigging operations; rigging and unrigging STAR latch assembly; rigging and unrigging traveling SURF; testing, operating, and rigging sliding pad eyes, winches, and cargo drop reel; rigging the receiving station and transfer station (STREAM with STAR etc.); making, sending, or receiving Replenishment at Sea (RAS) messengers; maintaining and rigging blocks; identifying STREAM rigging equipment; identifying and rigging markers (day time and night time) and highlines; and conducting emergency breakaways.</p>

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General BM Skill Area	Underway Replenishment
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig highlines or synthetic personnel highlines
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify equipment associated with personnel highline transfer • Identify signals and markers used at the personnel transfer station
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NWP 4-01.4, Underway Replenishment • Underway Replenishment Hardware and Equipment Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: detailing the make-up of the highline, inhaul and outhaul lines; describing the assembly and connecting procedures of the transfer chair and Stokes litter; and handling lines during the transfer.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Underway Replenishment
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct light line transfer
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Identify equipment and procedures used to transfer materials (medical supplies, movies, etc.)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100• NWP 4-01.4, Underway Replenishment
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on following the correct procedures and using the right equipment to transfer materials via light line.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Render honors
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the authority of a boat coxswain and boat officer • Determine the rules of boat etiquette in rendering honors
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying the authority and responsibility of a boat coxswain and boat officer and observing the rules of boat etiquette.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Read and identify signal flags, personal flags and pennants, and bow and flagstaff insignias
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify flags used during boat calls • Determine the display of the national ensign • Determine the display of personal flags and pennants • Recognize bow and flagstaff insignias
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions in the following areas: reading and identifying signal flags (boat recall, etc.); identifying bow and flagstaff insignias; and describing the proper display of the national ensign, personal flags and pennants, bow insignias, and flagstaff ornaments on small boats.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Receive and relay navigational sound signals and identify navigational lights
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify navigation rules for international and inland waters • Interpret various navigational sound and light signals
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • Navigation Rules, COMNTINST M16672.2 • NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: using the RULES OF THE ROAD and identifying sound signals and navigational lights during normal and inclement weather (fog), meeting situations, etc.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig boat booms
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify parts of a boat boom • Recall the procedures to rig and unrig a boat boom
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • Knight's Modern Seamanship
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying the functions of the various boat boom parts and rigging or unrigging the boat boom.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain MK6 life rafts
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the tasks and procedures to maintain and handle life rafts and stowage equipment • Identify life raft survival gear • Recall life raft capacity, weight, dimensions-inflated, and dimensions-container
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: Cleaning and inspecting life rafts and equipment; replacing life raft equipment and parts; obtaining of life rafts; disposing of life rafts; and identifying life raft characteristics.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct punt operations
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> Identify safety equipment used in punt operations, and identify flag signals (INDIA, ALFA, etc.)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on identifying safety equipment and flag signals used when conducting punt operations.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Painting and Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain paint storage lockers
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the tasks and procedures associated with the following:</p> <ul style="list-style-type: none"> • Inventory and maintain paint storage lockers • Demonstrate proper stowage of paints and solvents
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 631, Volume I, Preservation of Ships in Service-General • NSTM, Chapter 670, Stowage, Handling, and Disposal of Hazardous General Use Consumables
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: stowing paints and solvents; identifying paint shelf life codes; maintaining well-stocked paint storage lockers; and inspecting and labeling paints.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Painting and Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Select and issue paints, solvents, and painting equipment and maintain painting equipment
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the tasks and procedures associated with the following:</p> <ul style="list-style-type: none"> • Select and issue paints, solvents, and painting equipment (brushes, rollers, paint sprayers, etc.) • Clean and maintain painting equipment
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 670, Stowage, Handling, and Disposal of Hazardous General Use Consumables • Hazardous Material User's Guide • NSTM, Chapter 631, Volume 2, Preservation of Ships in Service-Surface and Painting
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying types of paints, solvents, and safety equipment; mixing paints; taking precautions when handling and distributing paint materials; and cleaning and maintaining painting equipment.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Painting and Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Mix and lay non-skid and polyvinyl rubberized compound (PRC) deck covering
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the tasks and procedures for proper surface preparation, mixing, and application of non-skid compounds • Define curing time • Identify non-skid specification types • Determine deck covering thickness
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 634, Deck Coverings
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: determining the type of surface to prepare; preparing the surface; mixing and applying non-skid or PRC compounds; and repairing damaged non-skid areas.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Painting and Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Apply paints to surfaces using pneumatic or electric equipment
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the procedures to use with the appropriate equipment
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 631, Volume 1, Preservation of Ships in Service-General • NSTM, Chapter 631, Volume 2, Preservation of Ships in Service-Surface and Painting
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying painting procedures when using paintbrushes and rollers or when using pneumatic or electric paint spraying equipment.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Painting and Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review Material Safety Data Sheet (MSDS) and Hazardous Material (HAZMAT) User's Guide for use with hazardous materials
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the purpose of the MSDS and the HAZMAT User's Guide • Identify when these items are used
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • Hazardous Material User's Guide
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying procedures and guidelines to use when cleaning paint and solvent spills and disposing of paint waste or hazardous materials.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Painting and Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Apply anti-fouling (AF) paint
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Recall procedures for applying organotin anti-fouling paints • Identify the safety procedures to follow when applying AF paint
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 631, Volume 1, Preservation of Ships in Service-General • NSTM, Chapter 631, Volume 3, Preservation of Ships in Service-Surface Ship/Submarine Applications
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on identifying the procedures for application of organotin anti-fouling paints and identifying the recommended safety precautions.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Flight Deck, Search, and Rescue Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform all duties associated with flight deck operations (helicopter)
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the tasks and procedures required to:</p> <ul style="list-style-type: none"> • Inspect and maintain flight deck equipment (cranials, vests, etc.) • Conduct foreign object damage (FOD) walkdowns • Conduct vertical replenishment (VERTREP) • Chock and chain helicopter
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 077, Personnel Protection Equipment • NWP 4-01.4, Underway replenishment • NWP 3-04.1 (formerly NWP 42), Shipboard Helicopter Operating Procedures
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying, inspecting, and using flight deck equipment; following the recommended procedures for flight operations; hooking and unhooking cargo during day or night VERTREP operations; and returning retrograde equipment during VERTREP operations.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Flight Deck, Search, and Rescue Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain and rig equipment for Search and Rescue (SAR) and conduct recoveries
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Recall hoisting and lowering of small boats procedures • Identify personnel and equipment requirements for small boat SAR operations • Identify requirements to maintain equipment
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 583, Boats and Small Craft • NWP 3-50.1, Naval Search and Rescue (SAR) Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying small boat manning and qualification requirements for SAR operations; inventorying and inspecting SAR equipment; recovering a person overboard; and identifying signals and lights used in SAR operations (day or night) to include ship-to-boat and boat-to-ship signals.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Flight Deck, Search, and Rescue Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct Search and Rescue (SAR) operations-shipboard recovery
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Maintain, inventory, and inspect shipboard recovery equipment • Recall the procedures to recover a person overboard (shipboard recovery)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NWP 3-50.1, Naval Search and Rescue (SAR) Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: recovering a person overboard (shipboard recovery); identifying equipment used in daytime and nighttime rescues; rigging and unrigging shipboard recovery equipment (including weight test requirements on equipment); rigging and unrigging portable davits; and recognizing signals given by the SAR swimmer.

Advancement Handbook for BM3

General BM Skill Area	Boat Handling and Small Boat Operations
<i>A skill</i> you are expected to perform from the General Skill Area above:	Inspect, clean, remove, and replace boat davits or boat davit falls and boat davit safety devices
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Identify requirements and characteristics of safe and well-maintained boat davits or boat davit falls
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seaman, NAVEDTRA 12016• Boatswain's Mate, NAVEDTRA 12100• NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: inspecting, cleaning, removing, and replacing boat davits or boat davit falls.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Handling and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Stow boats aboard ship
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Recognize types and configurations of boat davits • Inspect boat stowage • Identify equipment associated with boat stowage • Identify tasks used to stow and unstow boats
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions covering the following: identifying boat stowage types; identifying types of davits; and rigging and unrigging equipment used to secure boats aboard ship (heavy weather pennants, belly gripes, etc.)

Advancement Handbook for BM3

General BM Skill Area	Boat Handling and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Hoist and lower boats
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the equipment and procedures used to lower and hoist boats (by crane or davit)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: lowering and raising boats to the rail; loading and unloading boats; launching and recovering boats; hooking and unhooking sea painter; and rigging and unrigging boat handling equipment.

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General BM <i>Skill Area</i>	Boat Handling and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Test and start small boat engines
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Recall small boat operating instructions • Identify the steps in starting and testing small boats
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: determining boat capacity; testing the engines prior to full operation; starting the engines; and following the operating instructions and safety precautions for small boats.

Advancement Handbook for BM3

General BM <i>Skill Area</i>	Boat Handling and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inventory, inspect, test, remove, and replace small boat equipment
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify small boat equipment • Identify weight test procedures • Identify requirements for safety and well-maintained equipment
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: inventorying, inspecting, testing, removing, and replacing small boat equipment; and weight testing small boat equipment.

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General BM <i>Skill Area</i>	Boat Handling and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct small boat towing exercises
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the procedures to tow alongside • Identify lines used when towing alongside
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NSTM, Chapter 582, Mooring and Towing, Section 11
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying procedures for harbor towing (towing alongside) and tow handling equipment.

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General BM <i>Skill Area</i>	Boat Handling and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Identify navigational buoys
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify maritime buoyage system components • Recall buoyage regions
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying buoys and explaining their meaning(s).

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General BM <i>Skill Area</i>	Boat Seamanship and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Read a compass, compensate for compass errors, and identify dead reckoning methods
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the steps necessary to steer a boat by compass • Recognize and correct compass errors • Define dead reckoning and dead reckoning terms
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seaman, NAVEDTRA 12016 • Boatswain's Mate, NAVEDTRA 12100 • Dutton's, Navigation and Piloting
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying parts of a compass; obtaining information from a compass; determining and correcting a compass course; and defining terms, methods, and key elements to dead reckoning.

Part 2

Advancement Handbook for BM2

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Deck Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct rescue salvage operations
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Identify procedures and methods used in rescue salvaging operations
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: describing types and methods of salvage and identifying salvaging equipment.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Deck Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig, unrig, and inspect standing and running rigging
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Recognize standing and running rigging
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on identifying equipment associated with standing and running rigging and its uses.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Calculate safe-working loads (SWL) of booms, cranes, etc.
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Determine SWL on booms, cranes, etc.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NSTM, Chapter 589, Cranes • NSTM, Chapter 573, Booms
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: calculating load weights; defining critical and non-critical lifts; and determining boom/crane capacity.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Calculate cube and volume of stowage areas
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> Determine cube and volume of stowage areas
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying and determining the formulas used for figuring area and/or volume of stowage areas.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Cargo Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Signal cranes and booms
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Identify signals given during crane and boom operations
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100• NSTM, Chapter 589, Cranes
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: the correct procedures to signal the crane/winch operator.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Anchoring, Mooring, and Towing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Slip the anchors or moor
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Recall procedures to follow when mooring and unmooring
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on identifying the equipment and the procedures to use when slipping a mooring.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Painting and Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Administer long-range painting and preservation programs
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none">• Determine the proper painting guidelines for the upkeep of interior and exterior spaces
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boatswain's Mate, NAVEDTRA 12100• NSTM, Chapter 631, Volume 1, Preservation of Ships in Service-General
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on identifying the required guidelines and procedures before painting or repainting the ship's surfaces.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Flight Deck, Search and Rescue Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Launch, recover, and refuel helicopters
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify command responsibilities on air-capable ships • Recall procedures for launching, recovering, and refueling helicopters
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NWP 4-01.4, Underway Replenishment • NWP 3-04.1, Helicopter Operating Procedures, Chapters 1, 4, 8, and 10 • NATOPS Manual, NAVAIR 00-80T-113, Aircraft Signals
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying organization responsibilities (LSO, LSE, chock and chain person, etc.) on air-capable ships; signaling, launching, recovering, and refueling helicopters, including helicopter in-flight refueling (HIFR), and hot refueling (engine running) procedures; and identifying personnel and procedures used in vertical replenishment operations.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Boat Handling and Small Boat Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect small boat hulls
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Recall small boat administrative policies
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 583, Boats and Small Craft
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: assigning small boats to ship or shore commands; obtaining and inspecting (Boat Inspection Report, NAVSEA 9583/3) small boats; surveying, turning-in, and disposing of boats; and changing boat configurations.

Advancement Handbook for BM2

General BM <i>Skill Area</i>	Amphibious Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Position small crafts for anchorages and identify amphibious signals and markers, and conduct well deck operations
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify the phases of an amphibious operation • Recall signals and markers used during an amphibious assault • Recognize types of small crafts
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NWP 3-02.1, Ship-to-Shore Movement
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: differentiating the phases of an amphibious operation; identifying flags, signals, markers, and lights used during an amphibious assault; conducting the water-borne ship-to-shore movement; and distinguishing the types of crafts/boats used in ship-to-shore movement.

Part 3

Advancement Handbook for BM1

Advancement Handbook for BM1

General BM <i>Skill Area</i>	Anchoring, Mooring, and Towing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct mooring and unmooring with anchors
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identify mooring configurations used in mooring with anchors (Mediterranean moor, hammerlock moor, etc.)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 582, Mooring and Towing • Knight's Modern Seamanship
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on identifying the procedures for mooring with anchors using the various methods (Mediterranean moor, hammerlock moor, etc.).

Advancement Handbook for BM1

General BM <i>Skill Area</i>	Anchoring, Mooring, and Towing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Send and receive tow hawser
<i>Knowledge</i> you should have to perform this skill:	Recall the tasks and procedures associated with the following: <ul style="list-style-type: none"> • Sending towing hawser (towing ship) • Receiving towing hawser (towed ship)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NSTM, Chapter 582, Mooring and Towing • Navy Towing Manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on determining and identifying the procedures (including sound signals) to use in ship-to-ship towing evolutions.

Advancement Handbook for BM1

General BM <i>Skill Area</i>	Underway Replenishment
A <i>skill</i> you are expected to perform from the General Skill Area above:	Rig and unrig stern fueling stations, and receive astern refueling rig
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Recall the astern method of refueling • Identify equipment used in the astern method of fueling (delivery and receiving)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • NWP 4-01.4, Underway Replenishment
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on identifying the procedures and equipment used in the astern refueling method.

Part 4

Advancement Handbook for BMC

Advancement Handbook for BMC

General BMC <i>Skill Area</i>	Deck Seamanship
A <i>skill</i> you are expected to perform from the General Skill Area above:	Coordinate shipboard honors and ceremonies
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Describe ceremonial procedures onboard ship
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Boatswain's Mate, NAVEDTRA 12100 • U.S. Navy Regulations
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You should expect questions on the following: identifying four ceremonial occasions honored for each ship constructed for service; describing the roles of military components for burial at sea; and comparing burial at sea procedures of casket remains to burial procedures for cremated remains.

Appendix 1

References Used in This Advancement Handbook

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
BM3	COMDTINST M16672.2	Navigation Rules (Coast Guard)		Note 3
	NAVEDTRA 12016	Seaman		Note 1
	NAVEDTRA 12100	Boatswain's Mate		Note 1
	NSTM S9086-AA-STM- 010/CH-001	General-NSTM Publications Index and User Guide	Chapter 001	Note 1
	NSTM S9086-CL-STM- 010/CH-077	Personal Protection Equipment	Chapter 077	Note 1
	NSTM S9086-TK-STM- 010/CH-571	Underway Replenishment	Chapter 571	Note 1
	NSTM S9086-TM-STM- 000/CH-573	Booms	Chapter 573	Note 1
	NSTM S9086-TV-STM- 010/CH-581	Anchoring	Chapter 581	Note 1
	NSTM S9086-TW-STM- 010/CH-582	Mooring and Towing	Chapter 582	Note 1
	NSTM S9086-TX-STM- 010/CH-583	Boats and Small Craft	Chapter 583	Note 1
	NSTM S9086-T4-STM- 010/CH-589	Cranes	Chapter 589	Note 1
	NSTM S9086-US-STM- 010/CH-611	Fenders	Chapter 611	Note 1
	NSTM S9086-UU-STM- 010/CH-613	Wire and Fiber Rope and Rigging	Chapter 613	Note 1
	NSTM S9086-VD-STM- 010/CH-631 V1	Preservation of Ships In Service-General	Chapter 631 V1	Note 1
	NSTM S9086-VD-STM- 020/CH-631 V2	Preservation of Ships In Service-Surface Preparation and Painting	Chapter 631 V2	Note 1
	NSTM S9086-VD-STM- 030/CH-631 V3	Preservation of Ships In Service-Surface Ship/Submarine Applications	Chapter 631 V3	Note 1
	NSTM S9086-VG-STM- 010/CH-634	Deck Coverings	Chapter 634	Note 1

	NSTM S9086-WK-STM-010/CH-670	Stowage, Handling, and Disposal of Hazardous General Use Consumables	Chapter 670	Note 1
	NWP 3-04.1	Shipboard Helicopter Operating Procedures		Note 1 and 2
	NWP 3-50.1	Naval Search and Rescue (SAR) Manual		Note 1 and 2
	NWP 4-01.4	Underway Replenishment		Note 1 and 2
	S9570-AD-CAT-010	Underway Replenishment Hardware and Equipment Manual		Note 1
	SL740-AA-MAN-010	U.S. Navy Towing Manual		Note 1
		Dutton's Navigation and Piloting		Note 4
	FED SPEC RR-W-410 (Series)	Wire Rope Acceptance Breaking Strength		Note 5
		Knight's Modern Seamanship		Note 4
BM2	NATOPS Manual NAVAIR 00-80T-113	Aircraft Signals		Note 1
	NWP 3-02.1	Ship-to-Shore Movement		Note 1 and 2
BM1		U.S. Navy Regulations	Chapter 12	Note 1

LEGEND:

Note 1 – To order, MILSTRIP to NAVICP PHILA (Stock No. from NAVSUP P2002) or via
INTERNET <http://www.nll.navsup.navy.mil>

Note 2 – NTIC Series B1 (CD-ROM) (See your command NWP Custodian)

Note 3 – National Imagery & Mapping Agency (NIMA), CATP2V01U
Customer Help Desk: 1-800-455-0899
DSN: 490-1236
Commercial: (314)260-1236

Note 4 – Commercial Purchase (To order, contact local bookstore or library)

Note 5 – DOD Specification and Standards Part II (Use DD Form 1425)